

WITH THE FARMERS

By Prof. W. F. MASSEY

Thursday, September 11, 1913.

Thinks That Doctors Disagree.
"You claim that where a farmer farms in a good rotation and grows the legumes and clover in a crop rotation, he needs them he needs to buy nitrogen, in Circular 167, from the Illinois Station, I and the following in regard to the clover in a crop rotation, will maintain the fertility of the soil. . . . Such opinions are largely erroneous. The mere growing of clover on normal land does not enrich it. Even the nitrogen is not increased unless the clover crop is returned to the soil either directly or in farm manure. Rotation with such crops as corn, oats and clover, depletes the soil of all important elements of fertility, and on normal soils always results ultimately in land ruin, unless some system of restoration is practiced. Clover takes large amounts of calcium and phosphorus from the soil, and does not increase the nitrogen content if only the roots and stubble are left, because they contain no more nitrogen than the clover itself will take from soils of normal productive power. How do you make this fit in with your ideas in regard to the clover? There is, if you read carefully, no difference between what I have urged and what Dr. Hopkins says. For instance, I had a letter some years ago from a farmer in Alabama, who said that what I had been saying about peas enriching the land was all nonsense, for he had taken a crop of peas from a piece of land for two years in succession, and it got so poor that he could hardly sprout peas. Of course it did, and any crop would do the same thing, and the peas had drawn on the mineral matter in the soil, and the land had become entirely insufficient to grow peas. Legumes draw very heavily on the phosphates and lime in the soil, and if the land is not supplied with these, and the crop is removed from the land, and no manure from its feeding returned, even the nitrogen will be exhausted. Then go back to the Illinois circular, No. 165, and find the following by Dr. Hopkins: 'Investigations clearly establish the fact that by growing and plowing under leguminous crops, either directly or in the manure, the soil is enriched. A farmer to whose work he referred secured plenty of nitrogen from the air, and have liberated, not only abundant supply contained in his soil, but also phosphorus as needed, from the fine-grained natural rock phosphate plowed under in connection with the decaying organic manure.'"

This is just what I have been insisting upon for many years, and what has been adopted as the regular practice by hundreds of the best wheat growers in Washington, who have immensely increased their wheat crop, and use no fertilizer, but acid phosphate, and that only on the wheat. In that section, a fertilizer dealer and manufacturer in Baltimore said that more than 50 per cent of the fertilizers sent there from Baltimore, not only contain no nitrogen, but a large part nothing but acid phosphate. And yet, since the abandonment of the use of complete fertilizers, the wheat crop of the farmers of that section have greatly increased in amount. No, my friend, there is no disagreement between doctors. Dr. Hopkins merely said that the mere growing of clover and removing their wheat crop, would not maintain the fertility of the soil, and so say I. You must use the clover as manure or as feed, and return the manure, and I have always insisted that the feeding is the best way to farm economy, for we can recover in the droppings more than 50 per cent of the manurial value of the clover, and can certainly make a profit out of the feeding of 50 per cent of the clover. The only 'legume' crop, as a rule, that I would use as manure direct, is the crimson clover crop for corn, and on that I would put all the manurial accumulations of the winter as fast as made.

Hairy Vetch Seed.
Those who are buying seed of the hairy vetch should get samples and send them to the Department of Agriculture in Washington, for examination. There is so much worthless vetch seed on the market that it is hard to get pure hairy vetch. The Department of Agriculture reports that they examined 297 different samples of this seed, and that in seventeen samples they found no hairy vetch at all, while the samples consisted of a mixture of hairy vetch, spring vetch and wood vetch. Circular No. 45, from the Department of Agriculture, gives the names of the dealers and the extent to which the seed is adulterated. This circular can be had on application free from the Secretary of Agriculture in Washington, D. C. The true hairy vetch seed is worth \$4 to \$6 a bushel, and the other vetches used for adulteration can be bought for \$2 a bushel. While the hairy vetch is hardly all over the country, the varieties used are most of them not hairy or valuable except in the Pacific Coast. You can detect these adulterants by crushing the seed. The seed of the hairy vetch, when it is crushed, is bright yellow, while the seed of the other species is either fawn, salmon or reddish orange in color, and if any of these colors show in crushed seed, it shows the adulteration. Buy the seed only from a seedman of reputation who will guarantee it to be pure hairy vetch.

Wheat and Rye as Winter Cover Crops.
"Will you please give me your opinion as to which is best as a winter cover, and which has the most commercial value to land, wheat or rye. I find by sowing side by side under the same conditions, that wheat will make twice as much rye, and I cannot decide which is best for the improvement of the land." Sown merely for pasture and a winter cover, wheat is certainly better than rye, and the pasture is better. As far as the improvement of the land is concerned, in turning under either there will not be a great deal of difference, for they do not like clover to add any nitrogen to the soil, but what they get from the soil. If you want the best winter cover and forage too, sow wheat and crimson clover. Where I live it is now a very common practice to sow wheat and crimson clover for a hay crop, which is cut as soon as the clover blooms, and without regard to the condition of the wheat. The clover gets nitrogen from the air and increases the nitrogen in the soil in its decay or by the application of the manure made from feeding the hay. There is no need of depending on rye or wheat alone as a winter cover crop if you are desirous of doing the best for the land. Of course, the clover will not amount to any-

thing as forage if sown with wheat and the wheat allowed to mature as a grain crop, as it will be dead by the time the wheat is cut. But even in that case, it would greatly help the soil. Peas in summer and crimson clover in winter are the best means for the Southern farmer to use for the improvement of his land and the feeding of stock.

Preventing Smut in Oats.
Nanemond County: "I will sow oats in a few weeks for winter cover crop, and before doing so I would like to know how to prevent the smut in the crop next spring? I put a few gum ashes on a small piece of German millet to see if they would kill it, and I found that they did. What caused it? Was it the alkali in them? They were very strong with something like concentrated lye." There are several ways to treat the oats seed to destroy the smut germs. The simplest probably is the Jensen, or hot-water, treatment. This is immersing the seed a short time in water made hot enough to destroy the smut germs. Water heated to the temperature of 132-142 degrees Fahrenheit will kill the spores and not injure the oats if the immersion is not longer than fifteen minutes. The water must not be allowed to get below 120 degrees nor much higher than 142. The best way is to have two large boilers that will take a basket of oats. One of these is merely kept warm for warming the seed before immersing it in the other, for if the oats are put at once in the hot water they will reduce the temperature at once. Keep the water in the other pot hot and temper it to the right degree by adding colder water. Dip the oats in the hot water for fifteen minutes, watching the thermometer all the time. Then drain them and spread out to dry before sowing. Another method is to use copper sulphate (bluestone). Dissolve one pound of commercial copper sulphate in twenty-four gallons of water and immerse the seed for twelve hours. Have another vessel of lime water made by slaking a pound of good lime in ten gallons of water. Dip the seed in the lime water for a few minutes, and then immerse in the bluestone solution.

The formaldehyde solution is the most simple and easy of any. The fresh ashes doubtless killed the miller by reason of the caustic nature of the lime in the ashes. I once bought a car load of Canada ashes, and in hauling them they took the hair off my mules very badly, and it was certainly the caustic lime.

Thomas Phosphate vs. Acid Phosphate.
"Will Thomas phosphate be as good as acid phosphate with my oats?" This will depend on the condition of the land. If your soil is well supplied with humus, or you are sowing oats after peas, the Thomas phosphate will be all right. If you are sowing oats after corn or land that has no peas and is deficient in humus, you had better use the acid phosphate as being more quickly available.

Copenhagen Cabbage; Celery.
Frederick County: "I am very much interested in knowing where I can get Danish seed of the Copenhagen market cabbage. When should the seed be sown, and should it be sown in the fall, or grown under glass for the spring setting? My celery is ten inches high—when should I begin the earthing?" Any of the leading seedsmen will sell you the Danish seed of the Copenhagen market cabbage, for there are none but Danish seed on the market yet, as none have been grown in this country. You can sow the seed in the middle of September, and set them in open furrows running east and west, setting them deep enough to cover the stems.

Selling Green Box, Etc.
"Can you give me the address of parties in New York or Philadelphia who buy boxwood shoots and flowers?" That will have to sell such things through the floral commission houses. Write to the Florists' Exchange, No. 8 Duane Street, New York, and they will give you the addresses of good commission houses. Small shoots of box are now being largely used by florists in making up designs, and doubtless will sell all right if cut properly, and you should get directions from the commission men, as most of these in the floral trade are highly responsible men.

Varieties of Melons.
Westmoreland County: "What, in your opinion, is the best, most profitable and satisfactory large cantaloupes for home use here? Please reply in 'The Times-Dispatch.'" There are several cantaloupe varieties that are good, when grown as I have suggested, on soil and properly matured and fertilized. Personally, I have a fancy for the melons with orange colored flesh, and of these the Osage, Knight and Paul Rose are all good. Of the large green-fleshed sorts, the Hackensack is excellent, and the old Anne Arundel, of the Baltimore market, the nutmeg-shank, are good. The Cassaba is large and often good, and sometimes poor, especially in clay soil. The latest cantaloupe is the Montreal Market. I have grown these to weigh nearly twenty pounds, but never had a sweet one. Grown by the Montreal growers, they have a great reputation. Some years ago, in passing a fancy fruit store in Philadelphia, I saw some crates of imported Montreal melons. They were very handsome, and I thought that I would like to taste a Canada-grown one. Asking the price, I was told \$1 each. I did not want cantaloupes that badly, and did not invest. For general good quality, not large size, there is no cantaloupe better than the variety of the Rocky Ford, known as Burdett's \$2.00 cantaloupe. These are planted here almost exclusively for the market, and it is rare to find one that is not sweet, if it is pulled at the right stage, or just as it easily parts from the stem. If you get a cantaloupe with medium sized melons there is none better. Emerald Gem is fine as an orange-colored melon, but it has the defect of cracking badly in wet weather. For an orange-colored large melon I would take the Osage, and for a large green one, the Hackensack.

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FAVORABLE NEWS ASSISTS MARKET

Crop Report, Steel Statement and Union Pacific Rumor Make Strong Market.

BY BROADMAN WALL.

New York, September 10.—A favorable interpretation of the government crop reports, a better Steel statement than expected, and confirmation of the story that Union Pacific directors contemplate distributing a cash bonus, combined to make to-day's stock market the broadest and strongest for many a day.

For some time past there has been a sleeping short interest in Union Pacific that never had a fair chance to cover, for no sooner did the price recede slightly under fresh efforts at depression, than the market grew exceedingly dull.

This last attempt carried the price to 144 on Tuesday, and the raiders or traders were buyers to-day at 154 1-2.

Union Pacific opened at 151 3-4, stop-loss orders collided with buying orders for foreign account, and the price carried to 154 5-8 before 11 o'clock. The market then receded to 154 with a final spurt just before the close that brought the stock to the high figure of the day, 155 1-8.

Readers of this column are familiar with the story that directors purpose to grant an extra distribution to stockholders. It is a mistake to assume, however, that the matter will be decided at the meeting to-morrow. There was also a sharp rise of 4 points in Union Pacific preferred on the theory that this stock would benefit from any extra distribution.

In well-informed quarters, however, it is not expected that the preferred stock will benefit, nor is it certain that the distribution will occur before next spring.

There was a broad tone to general trading. Southern Pacific was very strong, while Atchafalpa, St. Paul and the Hill stocks were firm and active. Industrial stocks, under the lead of Steel common, rose steadily. Bethlehem Steel, Republic Steel, both were in good demand, while American Can jumped a point and the preferred more than two. The excellent report of the Interboro-Metropolitan brought a renewal of speculative interests.

Reading was strong and closed at the top of the day; interesting developments are expected to unfold without any warning to the Street; a sharp advance in the price of steel was in view of the cumulative buying that has been noticed for some weeks past.

The short interest in this issue became enlarged in anticipation of the government suit. As a market factor, the news fell flat, and the shorts have nowhere to go but the open market to undo their bad judgment.

Copper stocks were the one dull feature of an otherwise interesting market; Amalgamated Copper moved within a half point, closing practically unchanged; the metal market both here and abroad continues to show strength, efforts being made to prevent a runaway market.

Foreign stock markets were by no means disposed to follow our lead; London houses were heavy sellers, disposing of some 30,000 shares, mostly Union Pacific and Atchafalpa.

Commodity markets were reactionary. Money worked a little higher for time loans with a broader demand for discounts from institutions out of town.

All the leaders were strong to-day, and speculative interest showed a tendency to expand. Strength and activity may be expected to continue. The buying in Colorado Fuel to-day looked excellent.

GETS THEIR GOAT

Customs Official Holds Up Shriners' Ceremonial From Panama.

Washington, September 10.—The case of an American-born goat, which went visiting to Panama with a party of St. Paul Shriners and now wants to re-enter its native country at New Orleans, clogged the wheels of the Federal government to-day. Secretary of the Treasury McAdoo received a telegram from New Orleans, signed J. E. Pearce, stating that the Osman Temple of Shriners, of St. Paul, took the goat, which he called a "ceremonial goat," to Panama on a special trip, and that upon their return to New Orleans, the United States Public Health officials refused admission to the animal.

"Why, this is not a foreign goat or a goat without a country, it's an American goat. Admit him," ordered Secretary McAdoo. The case was informed, however, that the Secretary of Agriculture must be consulted to determine whether the goat had contracted any disease. The goat is now on the hands of Secretary Houston.

DISMISS CHARGE OF WHITE SLAVERY
Philadelphia, September 10.—Following the receipt of orders from Washington this morning, Agent Albert Gordon, of the Department of Justice, withdrew the white slavery charge against Francis Cannon, of Washington, who was arrested because he is alleged to have brought Louise Rhodes, a sixteen-year-old girl of Bayley Springs, here to marry her, and Cannon was immediately released.

The local authorities refused to release the beautiful girl, because they had not heard from her mother. Cannon requested that he be allowed to get a license in Pennsylvania. The girl will be held until some of her relatives are heard from.

Cannon, who is twenty-two years old, and the girl came here originally to get married, and they were unable to get a license, owing to the youthfulness of Miss Rhodes.

WILLIAM CAMPER SENTENCED.
Gets Two and a Half Years for Shooting Carl Leonard.

[Special to The Times-Dispatch.] Bristol, Va., September 10.—William Camper, twenty-four years old, to-day was given two and a half years in the Virginia Penitentiary by a Bristol jury for maliciously shooting Carl Leonard, aged eighteen years. Camper fired upon Leonard during carnival week because Leonard had thrown confetti in the face of the girl Camper accompanied. The bullet passed entirely through Leonard's body, and the surgeons deemed Leonard's recovery almost a miracle.

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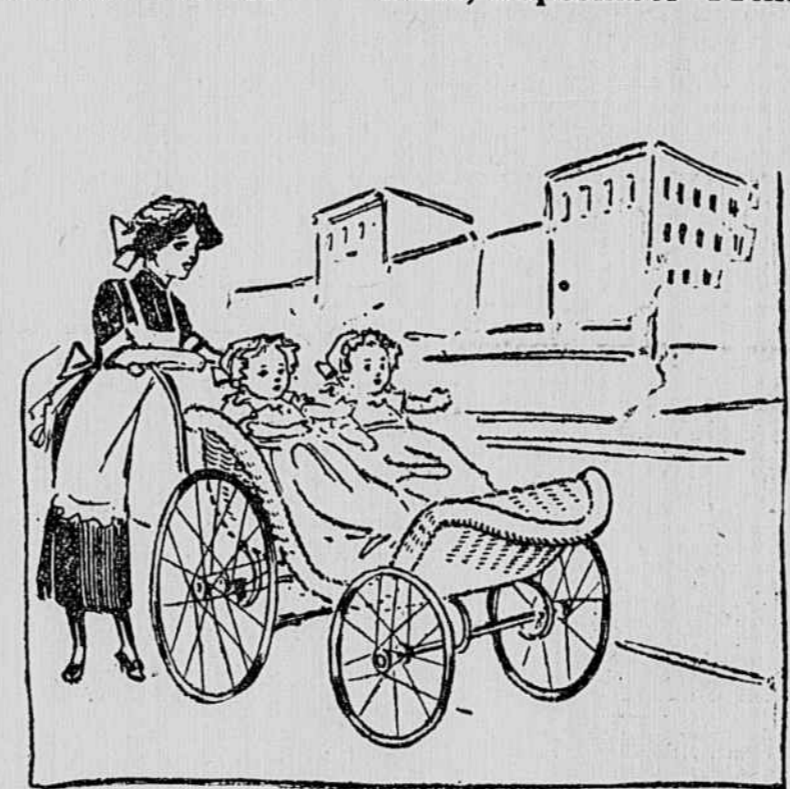
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TOTAL NUMBER OF PICTURES, 77. Contest began July 27th. Each day a different picture appears in this space. Cut them out. Save them until the last picture appears on October 11th. Don't send in partial lists. Wait until you have all the answers to the 77. Read Rules, Daily Story and Special Announcements in another part of this paper. It will help you win a prize. Extra pictures and coupons of any date that have appeared may be had at 2c. Enter to-day without registering your name. Merely Save Pictures and Coupons as they appear.



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